

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)
(PCT Rules 44bis.3(c) and 72.2)

To:

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JAPON

Date of mailing (day/month/year) 26 May 2006 (26.05.2006)	
Applicant's or agent's file reference FP04-0271-00	IMPORTANT NOTIFICATION
International application No. PCT/JP2004/010403	International filing date (day/month/year) 22 July 2004 (22.07.2004)
Applicant National University Corporation Tokyo University of Agriculture and Technology et al	

1. Transmittal of the translation to the applicant.



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

None

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Yoshiko Kuwahara
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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference FP04-0271-00	FOR FURTHER ACTION		See item 4 below
International application No. PCT/JP2004/010403	International filing date (<i>day/month/year</i>) 22 July 2004 (22.07.2004)	Priority date (<i>day/month/year</i>) 22 July 2003 (22.07.2003)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant National University Corporation Tokyo University of Agriculture and Technology			

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).

2. This REPORT consists of a total of 7 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Box No. I | Basis of the report |
| <input checked="" type="checkbox"/> Box No. II | Priority |
| <input type="checkbox"/> Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> Box No. VI | Certain documents cited |
| <input type="checkbox"/> Box No. VII | Certain defects in the international application |
| <input checked="" type="checkbox"/> Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis.2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 740 14 35	Date of issuance of this report 15 May 2006 (15.05.2006)
	Authorized officer Yoshiko Kuwahara Telephone No. +41 22 338 90 90

PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing
(day/month/year)

Applicant's or agent's file reference

FP04-0271-00

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/JP2004/010403

International filing date (day/month/year)

22.07.2004

Priority date (day/month/year)

22.07.2003

International Patent Classification (IPC) or both national classification and IPC

Applicant

National University Corporation Tokyo University of Agriculture
and Technology

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/010403

Box No. 1

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐

This opinion has been established on the basis of a translation from the original language into the following language

_____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐

a sequence listing

☐

table(s) related to the sequence listing

b. format of material

☐

in written format

☐

in computer readable form

c. time of filing/furnishing

☐

contained in the international application as filed.

☐

filed together with the international application in computer readable form.

☐

furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

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Box No. II

Priority

1. ☐ The following document has not yet been furnished:

☐ copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date in the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Among the inventions described in the claims, the inventions of claims 1 and 7 through 29 describe providing, as an essential feature of the invention or as an alternative choice among inventive features, a plurality of bodies of birefringent material formed of cylindrical bodies used as reflective polarizers.

However, none of the applications serving as the basis for claiming priority for this international application, i.e. neither Japanese Patent Application No. 2003-199655, nor Japanese Patent Application No. 2004-186036, contains inventions, in which the plurality of bodies of birefringent material comprised in the reflective polarizer is made up of cylinders.

Accordingly, the inventions of claims 1 and 7 through 29 cannot enjoy the priority claim effect and the Opinion regarding their novelty, inventive step, and industrial applicability has been prepared based on the date of filing of this international application as the reference date.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/JP2004/010403

Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	2-6, 13-29	YES
	Claims	1, 7-12	NO
Inventive step (IS)	Claims	2-6	YES
	Claims	1, 7-29	NO
Industrial applicability (IA)	Claims	1-29	YES
	Claims		NO
2. Citations and explanations:			
Document 1: JP 2000-506990 A (Minnesota Mining & Mfg. Co.), 06 June 2000 Full text; all drawings.			
Document 2: JP 2000-56133 A (Shojiro KAWAKAMI), 25 February 2000 Full text; all drawings.			
Document 3: JP 11-95027 A (Shimadzu Corp.), 09 April 1999 Full text; all drawings.			
Document 4: JP 2003-227923 A (Nissan Motor Co., Ltd.), 15 August 2003 Full text; all drawings.			
<p>Regarding claims 1 and 7 through 12</p> <p>As far as the inventions of claims 1 and 7 through 12 are concerned, a publicly known document, i.e. document 4, describes a light-reflecting body with a light-reflecting function fabricated by providing microstructures in an object.</p> <p>In addition, as described in document 4, the microstructures can have shapes corresponding to a columnar shape; round, elliptical, rectangular, polygonal, and various other shapes can be used as the shape of the cross-section of the microstructures; there can be embodiments, in which the microstructures exhibit birefringence; and the microstructures are arranged such that they are in contact with one another.</p> <p>Imparting birefringence to the microstructures of the light-reflecting object provided with a light-reflecting function results in a polarization dependency, which means that the object is just a reflective polarization element and, in addition, if the microstructures are arranged so as to be in contact with one another, the object cannot be distinguished from the reflective polarizer described in claim 1.</p> <p>Thus, the inventions described in claims 1 and 7 through 12 do not appear to be novel or to involve an inventive step over document 4.</p> <p>Regarding claims 13 through 29</p> <p>In and of themselves, stratified optical members produced by laminating reflective polarizers and layers exhibiting other optical functions such as phase retarders, as well as liquid crystal display devices provided with the above-described stratified optical members, belong to well-known conventional technology and require no special illustrative examples.</p> <p>Thus, based on document 4 and conventional well-known technology, the inventions described in claims 13 through 29 do not appear to involve an inventive step.</p> <p>Regarding claims 2 through 6</p> <p>As far as the inventions described in claims 2 through 6 are concerned, the features described in claim 2 are not described in documents 1 through 3, and, in addition, it would</p>			

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Although claim 1 describes the device as "... comprising a plurality of bodies of birefringent material in the form of polygonal columns or cylinders..." and identifies the plurality of bodies of birefringent material as being in the form of polygonal columns or cylinders, descriptions provided after claim 1 contain references to "cases in which the shape of the cross-section perpendicular to the longitudinal direction of the bodies of birefringent material is substantially round...". It is unclear what definition is applied in cases, in which the bodies of birefringent material are polygonal columns. Thus, the description of claim 1 is not clear.

Generally speaking, if there are alternative choices in the description of a claim and some choices are partially selected among the alternative features, then, when only these choices are identified by technically defining them, it is unclear what is technically defined in case of the other choices, and, therefore, the entire description of the claim is not clear.

The descriptions provided in claims 2 through 6 identify the shape of the bodies of birefringent material as polygonal columns or as more specific shapes of polygonal columns.

However, claims 2 through 6 are claims set forth in dependent form that directly or indirectly cite claim 1, and, when the shape of the cross section of the bodies of birefringent material is round, in other words, when the bodies of birefringent material are cylinders, and furthermore, when technical characteristics is in that there is a technical limitation, but it is inappropriate to identify, as particular features of the dependent claims, items that have no relationship to, and have a mutually exclusive relationship with respect to the technical features.

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box V

not be easy for a person skilled in the art to derive the above-mentioned features, which is why the inventions described in claims 2 through 6 are novel and involve an inventive step over documents 1 through 3.